H 31/987

Preprint from the 1987

BUREAU OF MINES MINERALS YEARBOOK

The Mineral Industry of Hawaii

UNITED STATES DEPARTMENT OF THE INTERIOR

I 28.37/a 2:

READEX FICHE best copy available

UNITED STATES DEPARTMENT OF THE INTERIOR • Manuel J. Lujan, Jr., Secretary

BUREAU OF MINES • T S Ary, Director

This publication is a chapter from the current Bureau of Mines Minerals Yearbook, comprising *Volume I, Metals and Minerals; Volume II, Area Reports: Domestic; Volume III, Area Reports: International.* The separate volumes of the Yearbook are sold by the Superintendent of Documents, Washington, D.C. 20402.

The Mineral Industry of Hawaii

This chapter has been prepared under a Memorandum of Understanding between the Bureau of Mines, U.S. Department of the Interior, and the Department of Land and Natural Resources of the State of Hawaii for collecting information on all nonfuel minerals.

By Fred V. Carrillo[1]

Hawaii's nonfuel mineral production value in 1987 was $73.5 million, an increase of a little more than 4% over that reported in 1986. The rise was attributed to an increase in construction brought about by unusually rapid growth of the visitor industry during 1986 and 1987. Taxable transactions in the construction industry were up by almost one-third and construction earnings reportedly rose 27.1% over those of 1986. Construction-put-in-place amounted to $21 billion for 1987, up 19% from the previous year, according to the Bank of Hawaii.

Industrial minerals accounted for the total mineral value. Cement, lime, pumice, construction sand and gravel, and crushed stone accounted for over 98% of the total value. Hawaii ranked 44th in the Nation in value of minerals produced in 1987.

Trends and Developments.—Research on cobalt-rich manganese crusts slowed as opposition in Hawaii to the program postponed reviews of environmental studies and the proposed regulations for seabed mining. The manganese occurs on seamounts underlying the 200-mile Exclusive Economic Zone surrounding the Hawaiian Archipelago. A draft environmental impact statement for a proposed lease sale was completed in April, naming four possible mining sites off Hawaii. Completion of the final report and issuing of leases was postponed until 1989.

Table 1.—Nonfuel mineral production in Hawaii[1]

Mineral	1985		1986		1987	
	Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)
Cement:						
Masonry thousand short tons	7	$588	7	$1,078	10	$1,559
Portland do.	215	16,050	287	24,253	324	26,550
Gem stones	NA	e25	NA	25	NA	25
Lime thousand short tons	W	W	3	W	3	W
Sand and gravel (construction) do.	e500	e2,100	605	2,666	e700	e3,500
Stone (crushed) do.	5,627	34,183	e7,100	e42,100	5,732	41,548
Combined value of other industrial minerals and values indicated by symbol W	XX	326	XX	290	XX	297
Total	XX	53,272	XX	70,412	XX	73,479

eEstimated. NA Not available. W Withheld to avoid disclosing company proprietary data, value included with "Combined value" figure. XX Not applicable.

[1]Production as measured by mine shipments, sales, or marketable production (including consumption by producers).

Table 2.—Nonfuel minerals produced in Hawaii in 1986, by county[1]

County	Minerals produced in order of value
Hawaii	Sand and gravel (construction).
Honolulu	Cement.
Kauai	Sand and gravel (construction).
Maui	Sand and gravel (construction), lime, pumice.
Undistributed[2]	Stone (crushed), gem stones.

[1]No production of nonfuel mineral commodities was reported for counties not listed.
[2]Data not available by county for minerals listed.

REVIEW BY NONFUEL MINERAL COMMODITIES

INDUSTRIAL MINERALS

Cement.—Hawaiian portland cement production and value increased to 323.78 short tons and $26.5 million, and masonry cement production increased to 10,119 short tons and $1.6 million in 1987. Of the total portland cement sold, 73% was used in ready-mixed concrete, 12% by concrete product manufacturers, 7% by building material dealers, 6% by Government agencies and other users, and 2% by highway and other contractors. Lone Star Hawaiian Cement Corp. continued to operate its Barbers Point plant in the Campbell Industrial Park in Honolulu County on Oahu.

Lime.—Hydrated lime was produced by the Hawaiian Commercial & Sugar Co. Ltd. from its calcining operations near Paia, in Maui County. Reported 1987 lime production in Hawaii remained constant in quantity but was up slightly in value from that reported in 1986.

Pumice and Pumicite.—Although 1987 pumice production was slightly higher than that of 1986, value remained constant. Pumice was processed for landscaping usage by Volcanite Ltd. in Hawaii County. Crude pumice for road construction was mined in Maui County by Maui Pineapple Co. Ltd. of Lahaina at its Honokohau cinder pit and in Hawaii County by Puna Sugar Co. Ltd. at Iilewa pit.

Sand and Gravel (Construction).—Construction sand and gravel production is surveyed by the U.S. Bureau of Mines for even-numbered years only. This chapter contains estimates for 1985 and 1987 and actual data for 1986. Data for odd-numbered years are based on annual company estimates.

Hawaii's construction sand and gravel production was estimated to have increased 16% to 700,000 short tons in 1987.

Stone.—Stone production is surveyed by the U.S. Bureau of Mines for odd-numbered years only. This chapter contains actual data for 1985 and 1987 and estimates for 1986. Data for even-numbered years are based on annual company estimates.

Crushed stone sold or used by Hawaiian producers in 1987 totaled 5,732,000 short tons valued at $41.5 million. Crushed limestone production used for concrete aggregate, road base and coverings, cement manufacture, construction, and agricultural uses totaled 1,337,000 short tons valued at more than $9 million. Hawaii ranked fifth among the States in the production of volcanic cinder and scoria, reporting 255,000 short tons valued at $1,294,000.

---

[1]State Mineral Officer, Bureau of Mines, Reno, NV.

Table 3.—Hawaii: Crushed stone[1] sold or used by producers in 1987, by use

(Thousand short tons and thousand dollars)

Use	Quantity	Value
Coarse aggregate (+1-1/2 inch):		
Macadam	78	701
Riprap and jetty stone	30	276
Filter stone	28	341
Coarse aggregate, graded:		
Concrete aggregate, coarse	1,441	9,809
Bituminous aggregate, coarse	208	1,201
Fine aggregate (-3/8 inch):		
Stone sand, concrete	729	9,990
Stone sand, bituminous mix and seal	369	2,316
Screening undesignated	85	410
Coarse and fine aggregates:		
Graded road base or subbase	976	5,852
Unpaved road surfacing	109	441
Crusher run or fill or waste	379	2,372
Other construction[2]	99	733
Chemical and metallurgical, cement manufacture	746	4,252
Special: Other unspecified[3]	456	2,854
Total	[4]5,732	41,548

[1]Includes limestone, traprock, volcanic cinder and scoria, and miscellaneous stone.
[2]Includes agricultural limestone, bituminous surface-treatment aggregate, and combined coarse and fine aggregates.
[3]Includes production reported without a breakdown by end use and estimates for nonrespondents.
[4]Data do not add to total shown because of independent rounding.

Table 4.—Principal producers

Commodity and company	Address	Type of activity	County
Cement:			
Lone Star Hawaiian Cement Corp	Barbers Point Plant 220 South King St. Suite 1700 Honolulu, HI 96813	Cement plant	Honolulu.
Lime:			
Hawaiian Commercial & Sugar Co. Ltd.	Box 266 Puunene, HI 96784	Rotary kiln and continuous hydrator.	Maui.
Pumice:			
Maui Pineapple Co. Ltd.	Box 445-C Lahaina, HI 96761	Surface mine	Do.
Puna Sugar Co. Ltd	Box 120 Keaau, HI 96749	do.	Hawaii.
Volcanite Ltd.	Box 3000 Kailua Kona, HI 96740	do.	Do.
Sand and gravel (construction):			
Amelco Corp., Maui Concrete	Box 488 Kahului, HI 96732	Plant and pit.	Maui.
Kauai Sand & Gravel Inc.	4247 Kapaia Rd. Lihue, HI 96766	do.	Kauai.
Stone (crushed):			
Ameron Honolulu Construction & Drayage Ltd.	Box 29968 Honolulu, HI 96820	Quarries	Honolulu and Maui.
Grace Pacific Corp., Concrete and Rock Div.	91-920 Farrington Hwy. Ewa Beach, HI 96707	do.	Do.
Grove Farm Rock Co. Inc.	Puhi Rural Station Lihue, HI 96776	do.	Kauai.
Herbert Tanaka Co.	87-1748 Farrington Hwy. Waianae, HI 96792	Quarry	Honolulu.
Kuwaye Bros. Inc.	160 Keaa St. Hilo, HI 96720	do.	Hawaii.
Lone Star Hawaii Rock Products	11555 Dublin Canyon Rd. Pleasanton, CA 94566	do.	Honolulu.

☆ U.S. GOVERNMENT PRINTING OFFICE: 1989—242-377/81002